UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,559	04/17/2001	Mark T. Corl	2916-0129P	5910

2292 7590 09/08/2005	EXAMINER
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747	HUYNH, SON P

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/835,559	CORL, MARK T.
	Examiner	Art Unit	
	Son P. Huynh	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 April 2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the memory, generator, digital television receiver as being claimed in claims 1-32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 1-26, 32 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

Claims 1-26 and 32 recite a data structure/storage medium that stores data per

se with no pre- or post- processing by a device thereupon. The claimed subject matter

fails to produce a useful, concrete or tangible result.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Schein et al. (US 6,002,394) in view of Schneidewend (US 6,529,526).

Regarding claim 1, Schein discloses a memory (e.g. RAM –col. 9, lines 20-37) to

contain program and data about digital television content such as program, program

guide schedule data, and additional information of the television content– col. 15, lines

1-42; col. 18, lines 20-67; figures 4-9, 16A), the memory being organized to contain a

data structure comprising at least one of an information type descriptor segment (e.g.

program guide data such as channel information, title information) and an extended

information descriptor segment each of which characterize extra information associated

with a virtual channel or an event in a DTV data stream (data that describes links

between sources, link for additional information, etc. Figures 4-9, 16A, col. 9, line 21-

col. 10, line 27; col. 14, line 53-col. 15, line 41). However, Schein does not specifically

disclose PSIP data.

Schneidewend suggests using PSIP data (col. 1, lines 50-55; col. 2, lines 40-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Schein to use the teaching as taught by Schneidewend in

order to comply with the standard (col. 2, lines 50-55).

Regarding claim 2, Schein further discloses the information type description segment

and the extended information descriptor segment includes: a descriptor tag segment

(e.g. show title, channel information, etc.); a descriptor length segment (e.g. duration);

and an information type identification segment (e.g. theme, show descriptor) – see

figures 4-9).

Regarding claim 3, Schein in view of Schneidewend discloses a data structure as discussed in the rejection of claim 2. Schein further discloses the descriptor tag segment has a value for the information type descriptor segment and a value for an extended information descriptor segment (see figures 5-9). It would have been obvious to one of ordinary skill in the art to use a value of 0xC9 for the information type descriptor segment and a value of 0xC8 for extended information descriptor segment in order to achieve developer's desire.

Regarding claim 4, Schein further discloses the descriptor length segment indicates a remaining length of the information type descriptor segments as determined by the information type identification segment, the information description length and the information description segment (figures 4-9, 17B-17C).

Regarding claim 5, Schein further discloses the information type identification segment contain codes that characterizes the information associated with a virtual channel or an event in DTV data stream of an ASCII text file (ASCII text string – col. 13, lines 40-57).

Regarding claim 6, Schein further disclosed the information type descriptor segment includes an information description length segment (e.g. duration); and an information description text segment (e.g. show title, channel ID, etc. – figures 4-9, 16A).

Regarding claim 7, Schein further discloses the information description length segment

identifies a length of the information description text segment (description of duration of

the show title identifies the length of the show title – figures 4-9, 16A).

Regarding claim 8, Schein further discloses the information description text segment

includes text that characterizes the information associated with the virtual channel or an

event in a DTV data stream (e.g. program title, link for additional information, etc.

figures 4-9, 16A).

Regarding claim 9, Schein further discloses the information type identification segment

includes code description (e.g. theme category, rating, etc.) corresponding to the text

description in the information description text segment (figures 4-9, 16A-17C).

Regarding claim 10, Schein further discloses the extended information descriptor

segment further includes at least two of : an information expected usage segment (e.g.

favorite link, reference count); an information location length segment (e.g. channel

information, time slot, etc.); and an information location text segment (e.g. channel,

show title, etc. – figures 4-9, 16A).

Regarding claim 11, Schein discloses information expected segment includes favorites

link (figure 5) and using heuristic learning to customize the data display (col. 16, lines

10-14, automatically identifies favorites subject matter, actors, actresses, etc. (col. 16,

lines 42-55). Inherently, the usage segment includes at least one of a first field that

describes a usage of the extra information (program, channel, subject matter, actors,

actress, etc. anticipated by a creator of the extended information descriptor segment; a

second field that describes the extra information as being an advertisement or not (i.e.

based on the ID of the information – col. 12, lines 30-38).

Regarding claim 12, Schein further discloses the first field describes the extra

information as one of: extended event, extended program guide (EPG) information that

is to be displayed during an EPG display when an event is selected (e.g. list of movies

title when the MOVIE category is selected – figures 18A-18B); extended event selected

information that is to be displayed when an event is selected (figures 18C-18D);

extended channel EPG information that is to be displayed during an EPG display when

a channel is selected (figure 16B).

Regarding claim 13, Schein further discloses the information location identifies a

remaining length of the extended information descriptor segment as determined by the

information location text segment (figures 17B-17C).

Regarding claim 14, Schein further discloses the selecting to access a particular web

site on the Internet such as www.invoice.com (col. 18, lines 20-67). Inherently, the

information location text segment represents a string of text that is interpreted as a URL

so that the particular web site on the Internet is linked and accessed.

Regarding claim 15, Schein further disclose the user access Internet for additional

information such as actor, actress, products that are associated with the television

program received at the receiver (col. 3, lines 1-20; col. 15, lines 5-42; col. 16, lines 15-

62). Inherently, the URL (of the web site) is a reference to a data program within the

DTV data stream or data external to the DTV data stream.

Regarding claim 16, Schein further discloses the external data is from the world wide

web (WWW) – col. 18, lines 30-43).

Regarding claim 17, Schein further discloses the data from the WWW is referenced with

a path beginning as http:// www. (Col. 18, lines 30-43).

Regarding claim 18, Schein further discloses a link between an information type

descriptor (e.g. show list, theme, etc.) and virtual channel table (channel data table –

figure 4).

Regarding claim 19, Schein further discloses a link between the extended information

descriptor segment (e.g. show list, theme, etc.) and virtual channel table (channel data

table – figure 4).

Regarding claim 20, Schein further discloses the first field describes the extra

information as being at least one of: intended to be displayed during a displaying of an

EPG (e.g. program content – figures 17B-17C); and intended to be displayed

independently of a displaying of an EPG (figure 17A).

Regarding claim 21, Schein further discloses the third field describes the location

(window 528, window 526) as being one of : the upper right of the display screen; the

lower right quadrant of the display screen (figures 19B-19C).

Regarding claim 22, the limitations as claimed correspond to the limitations as claimed

in claim 1, and are analyzed as discussed in the rejection of claim 1.

Regarding claim 23, the limitations as claimed correspond to the limitation of claim 1,

wherein the claimed generator correspond to the claimed memory of claim 1, and are

analyzed as discussed with the rejection of claim 1.

Regarding claim 24, Schein further discloses the generator is embodied on a computer

running software (col. 8, lines 45-50; col. 16, lines 12-14).

Regarding claim 25, Schein further discloses the software is written in the language

Java (col. 2, lines 62-67).

Regarding claim 26, the limitations of computer readable article as claimed correspond to the limitations of memory as claimed in claim 1, and are analyzed as discussed with respect to the rejection of claim 1.

Regarding claim 27, the limitations correspond to the limitations of claim 1 are analyzed as discussed with respect to the rejection of claim 1. Schein further discloses receiving the DTV stream of data packet, the stream containing program and system information protocol data (receiving data packets of program guide schedule data and other data such as program software needed for receiving, organizing and displaying data for the television program guide, data for the basic schedule information and other related data- col. 5, lines 38-65);

recognizing at leas tone data structure within the system information protocol data (extract and separate program guide, and condition access information from the stream – col. 6, line 50-col. 7, line 10; col. 7, lines 35-67);

generating the EPG display as a function of the at least one data structure (generating interactive electronic program guide as a function of the received data col. 6, line 61-col. 7, line 10, col. 7, lines 35-67).

Regarding claim 28, the limitations of the digital television receiver as claimed correspond to the limitations of the method as claimed in claim 27, and are analyzed as discussed with respect to the rejection of claim 27.

Regarding claim 29, Schein further discloses at least part of the receiver is embodied on a computer running software (col. 8, lines 45-50; col. 16, lines 12-14).

Regarding claim 30, Schein further discloses the software is written in the language Java (col. 2, lines 62-67).

Regarding claim 31, the limitations of the computer readable article as claimed correspond to the limitations of the method as claimed in claim 27. Schein further discloses the processor run the system using computer software program (col. 2, lines 55-67; col. 5, lines 1-7, lines 37-65). Thus, rejection on claim 31 is analyzed as discussed with respect to the rejection of claim 27.

Regarding claim 32, the limitations of the bit stream as claimed correspond to the limitations as claimed in claim 1, and are analyzed as discussed with respect to the rejection of claim 1.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Program Guide For Digital Television ATSC Standard.

Wehmeyer (US 6,169,543) discloses system and method for customizing

program guide information to include reminder item or local identifier.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Son P. Huynh whose telephone number is 571-272-

7295. The examiner can normally be reached on 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher C. Grant can be reached on 571-272-7294. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SPH
September 1, 2005

HAI TRAN
PRIMARY EXAMINER